

**REMARKS / ARGUMENTS**

Claims 1-31 are pending in the instant application. Claims 1, 11 and 21 are independent. Claims 2-10, 12-20 and 22-31 depend from independent claims 1, 11 and 21, respectively. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-3, 8-13, 18-23 and 28-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over USPP 2003/0035437 ("Garahi"), in view of USP 7,058,040 ("Schmidt"). Claims 4-7, 14-17 and 24-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Garahi in view of Schmidt and further in view of USP 6,810,409 ("Fry").

Though the Applicant generally disagrees with such rejections, to expedite allowance of various pending claims, the following discussion will focus in part on particular independent and dependent claims and/or portions thereof. Note that such focus is in no way to be construed as the Applicant agreeing with any rejections not specifically discussed below. The Applicant respectfully traverses the above rejections at least for the reasons previously set forth during prosecution and at least based on the following remarks.

### **REJECTION UNDER 35 U.S.C. § 103**

The determination of obviousness is a legal conclusion based on underlying findings of fact.<sup>1</sup> The factual inquiries, set forth in *Graham v. John Deere Co.*<sup>2</sup>, include: (1) the scope and content of the prior art, (2) the differences between the prior art and the claims, (3) the level of ordinary skill in the relevant art, and (4) any objective indicia of non-obviousness. Initially, the burden is on the Examiner to establish a *prima facie* case of obviousness<sup>3</sup>. “If the Examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.”<sup>4</sup> More specifically, MPEP at § 2142 states:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

“The determination of obviousness is made with respect to the subject matter as a whole, not to separate pieces of the claim.”<sup>5</sup> Accordingly, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.”<sup>6</sup> If, considering the claim as a whole, the Examiner deems the claim to be obvious in view of the prior art, the Examiner must provide a “clear articulation of the reason(s) why the

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<sup>1</sup> *Sanofi-Synthelabo v. Apotex, Inc.*, 550 F.3d 1075, 1085 (Fed. Cir. 2008).

<sup>2</sup> 383 U.S. 1, 86 S.Ct. 684 (1966)

<sup>3</sup> MPEP § 2142

<sup>4</sup> *Id.*

<sup>5</sup> *Apotex*, 550 F.3d 1075 at 1086. (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007); *Kimberly-Clark Corp. v. Johnson & Johnson*, 745 F.2d 1437, 1448 (Fed.Cir.1984)).

<sup>6</sup> MPEP § 2143.03 (quoting *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)).

claimed invention would have been obvious.”<sup>7</sup> The Examiner’s determination of obviousness “cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”<sup>8</sup>

In reviewing an Examiner’s determination of obviousness, “the Board cannot simply reach conclusions based on its own understanding or experience—or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings.”<sup>9</sup>

With these principles in mind, the Applicant now turns to the claim rejections, in particular.

**I. The Proposed Combination of Garahi and Schmidt Does Not Render Claims 1-3, 8-13, 18-23 and 28-31 Unpatentable**

**A. Independent Claims 1, 11 and 21**

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Garahi and Schmidt does not disclose or suggest at least the limitation of “allocating, based on said determined protocol, a processor within said access point, said processor compatible with said determined protocol,” as recited by the Applicant in independent claim 1.

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<sup>7</sup> MPEP § 2142.

<sup>8</sup> *KSR*, 550 U.S. 398 at 418 (quoting *In re Kahn*, 441 F.3d 977, 988, (Fed. Cir. 2006)).

<sup>9</sup> *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001). See also *In re Vaidyanathan*, Appeal 2009-1404 at 18-19 (Fed. Cir. May 19, 2010) (nonprecedential) (“If the examiner is able to render a claim obvious simply by saying it is so, neither the Board nor [the Federal Circuit] is capable of reviewing that determination. ... If there is neither record evidence nor detailed examiner reasoning, the Board should not conclude that [the Appellant’s] claims are obvious.”).

The Office Action states the following:

**Regarding claim 1**, Garahi discloses a method for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:

- determining by an access point, a protocol associated with a communication signal for the access point (AP) (access point selects a protocol to support multiple wireless protocols, see abstract and ¶20; Intelligent Access Point (IAP) uses IEEE 802.11 a, 802.11b, and 802.11g, see ¶43) and;
- processing the communication signal by a processor within the access point (processor in AP, see 136 fig.2, 136-1 fig.3, ¶36, and ¶39).

Garahi discloses that IAP may use low power schemes for short range network connections, such as those presented in IEEE standards 802.11a, 802.11b, and 802.11g (see ¶43), but does not explicitly disclose "allocating, based on the determined protocol, a processor within the access point, the processor compatible with the determined protocol."

However, Schmidt discloses a plurality of CPUs and a plurality of digital signal processors (DSPs) in a communication device (151 and 153 fig.2A) and the processors 151 and 153 can be configured to operate optimally on specific problems (see col.5, lns.51-57)." A DSP is a specialized microprocessor with an optimized architecture for the fast operational needs of digital signal processing.

See Office Action at pages 2-3. The Examiner also states the following in the

"Response to Arguments" section of the Office Action:

At page 16, applicant argues that Garahi and Schmidt fail to disclose "allocating, based on the determined protocol, a processor within the access point, the processor compatible with the determined protocol."

In reply, Schmidt discloses a plurality of CPUs and a plurality of digital signal processors (DSPs) in a communication device 151 & 153 and the processors 151 and 153 can be configured to operate optimally on specific problems as described in col.5, lines 51-57. A DSP is a specialized microprocessor with an optimized architecture for the fast

operational needs of digital signal processing. Therefore, an ordinary person in the art simply combines a plurality of DSPs as taught by Schmidt with the access point of Garahi and to apply the method of allocating one of the DSPs for a specific protocol, i.e., based on the determined protocol, so that it provides a way of having embedded functions in the DSP since DSP is a special-purpose processor used for digital signal processing applications for specific problems/tasks such as implementing the determined protocol by the access point. Therefore, the examiner respectively disagrees.

See Office Action, pp. 7-8. Schmidt discloses a multi-mode wireless communication device 100 (Fig. 2A), which utilizes data transmission over first and second media that overlaps in frequency, by computing one or more time division multiple access (TDMA) time-slot channels to be shared between the first and second media for data transmission. Referring to Fig. 2A, the multi-mode wireless communication device 100 utilizes a reconfigurable processor core 150, which includes MIPS processors 151 and digital signal processors (DSPs) 153. However, even though the multi-mode wireless communication device 100 utilizes multiple processors (151 and 153), Schmidt is still deficient. **More specifically, configuration and operation of the processors 151 and 153 is based on “optimal operation” and conservation of power (See Schmidt at col. 5, line 66 – col. 6, line 3), and not on a determined protocol, as required by Applicant’s claim 1.**

For example, the bank of DSPs 153 can be optimized to handle computational-intensive tasks, such as discrete cosine transforms (DCTs) or Viterbi encodings. (See *id.* at col. 5, lines 59-61). Schmidt, however, does not disclose that a specific processor (from the processors 151 and 153) is allocated to perform processing tasks associated

with a specific protocol. Furthermore, Schmidt does not disclose that any processor allocation is performed based on a determined protocol, as recited in Applicant's claim 1. In fact, **Schmidt utilizes all of its processors 151 and 153 at any given time, and "conservation of power" is achieved only by activating and deactivating (based on signal strength) of the short-range wireless transceiver core 130 and the cellular radio core 110, regardless of the type of communication protocol being used.** (See *id.* at col. 7, line 40 – col. 8, line 32). Therefore, the Applicant maintains that the combination of Garahi and Schmidt does not disclose or suggest at least the limitations of "allocating, based on said determined protocol, a processor within said access point, said processor compatible with said determined protocol," as recited in Applicant's claim 1.

In proposing to combine Garahi and Schmidt, the Examiner fails to provide "articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness" in the detailed manner described in KSR.

Specifically, the Examiner is required to provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." See *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) quoting *In re Kahn*, 441 F.2d 997,988 (CA Fed. 2006). Put another way, the Examiner should "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR*, 127 S. Ct. at 1741. The Examiner should make "explicit" this rationale of "the apparent reason to combine the

known elements in the fashion claimed,” including a detailed explanation of “the effects of demands known to the design community or present in the marketplace” and “the background knowledge possessed by a person having ordinary skill in the art.” *Id.*

The Examiner attempts to support the combination of Garahi and Schmidt as follows:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to simply combine a plurality of DSPs as taught by Schmidt with the access point of Garahi and to apply the method of allocating one of the DSPs as taught by Schmidt into the access point of Garahi, so that it provides a way of having embedded functions in the DSP since DSP is a special-purpose processor used for digital signal processing applications for specific problems/tasks such as implementing the determined protocol by the access point (Garahi, see ¶43; Schmidt, see col.5, lns. 51-57).

(See *id.*, p. 3). This unsupported, conclusory allegation does not provide “articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness” in the detailed manner described in KSR. Instead, the Office Action appears to be proposing the combination based solely on improper hindsight. The generic benefit of “that it provides a way of having embedded functions in the DSP since DSP is a special-purpose processor used for digital signal processing applications for specific problems/tasks” is not an articulated reasoning with a rational underpinning, as required by the MPEP. **The Examiner reasons that a plurality of DSPs, as taught by Schmidt, can be combined with the access point of Garahi in order “to apply the method of allocating one of the DSPs as taught by Schmidt into the access point of Garahi.” Even if such method of allocating DSPs is taught by Schmidt (a point,**

**which the Applicant does not concede), the Applicant notes that such teaching by Schmidt would still be insufficient to overcome Garahi's deficiencies. More specifically, what Garahi does not disclose is not simply allocating of DSPs, but allocating of at least one processor based on a previously determined communication protocol.** As explained above, such allocation is not disclosed by Schmidt, and, therefore, the rejections based on the proposed combination of Garahi and Schmidt is improper and should be withdrawn.

Accordingly, the proposed combination of Garahi and Schmidt does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 11 and 21 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 11 and 21 are also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

**B. Rejection of Dependent Claims 2-3, 8-10, 12-13, 18-20, 22-23 and 28-31**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 11 and 21 under 35 U.S.C. § 103(a) as being unpatentable by the combination of Garahi and Schmidt has been overcome and requests that the rejection be withdrawn. Additionally, claims 2-3, 8-10, 12-13, 18-20, 22-23 and 28-31



depend from independent claims 1, 11 and 21, respectively, and are, consequently, also respectfully submitted to be allowable.

### **1. Rejection of Dependent Claims 2, 12, and 22**

Dependent claims 2, 12, and 22 depend on independent claims 1, 11 and 21, respectively. Therefore, the Applicant submits that claims 2, 12, and 22 are allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

Additionally, the Applicant submits that the combination of Garahi and Schmidt does not disclose or suggest at least the limitation of "selecting said allocated processor from a pool of available processors within said access point, for said processing of said communication signal," as recited by the Applicant in claim 2. The Office Action relies for support on Schmidt and states the following:

Regarding claim 2, Garahi is silent on "selecting the allocated processor from a pool of available processors for the processing of the communication signal." However, Schmidt discloses a pool of available processors such as MIPS processor and/or one or more digital signal processors (DSPs) which are configured to operate optimally on specific problems (see col.5, ln.51-59).

(See Office Action at p. 3). The Applicant respectfully disagrees with the above characterization of Schmidt. For example, the bank of DSPs 153 can be optimized to handle computational-intensive tasks, such as discrete cosine transforms (DCTs) or Viterbi encodings. (See *id.* at col. 5, lines 59-61). Schmidt, however, does not disclose that a specific processor (from the processors 151 and 153) is allocated to perform

processing tasks associated with a specific protocol. Furthermore, Schmidt does not disclose that any processor allocation is performed based on a determined protocol, as recited in Applicant's claim 1. In fact, Schmidt utilizes all of its processors 151 and 153 at any given time, and "conservation of power" is achieved only by activating and deactivating (based on signal strength) of the short-range wireless transceiver core 130 and the cellular radio core 110, regardless of the type of communication protocol being used. (See *id.* at col. 7, line 40 – col. 8, line 32). Therefore, since Schmidt does not allocate a single processor, Schmidt also necessarily does not select an allocated processor (i.e., a single processor) from a pool of available processors within the access point, for processing of the communication signal (as explained above, all processors are used at any given time).

The Applicant maintains that the combination of Garahi and Schmidt does not disclose or suggest at least the limitations of "selecting said allocated processor from a pool of available processors within said access point, for said processing of said communication signal," as recited in Applicant's claim 2. Claims 12 and 22 are similar in many respects to the method disclosed in claim 2. Therefore, the Applicant submits that claims 12 and 22 are also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 2.

## **2. Rejection of Dependent Claims 3, 13, and 23**

Dependent claims 3, 13, and 23 depend on independent claims 1, 11 and 21, respectively. Therefore, the Applicant submits that claims 3, 13, and 23 are allowable

over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

Additionally, the Applicant submits that the combination of Garahi and Schmidt does not disclose or suggest at least the limitation of "said allocating comprises updating said processor to be capable of said processing of said communication signal," as recited by the Applicant in claim 3. The Office Action relies for support on Garahi and states the following:

Regarding claim 3, Garahi discloses "the allocating further comprises updating the processor to be capable of the processing of the communication signal (updating to be adapted to transmit and receive communication signals, see abstract and ¶22)."

(See Office Action at p. 4). The Applicant respectfully disagrees with the above characterization of Garahi. Garahi, at ¶22, discloses that the mobile access point can include a transceiver "adapted to transmit and receive communication signals". Paragraph 22, or any remaining paragraph of Garahi, does not relate in any way to the specific functionalities of an allocated processor. In fact, the Examiner has already conceded that Garahi does not disclose any processor allocation. See Office Action, p. 3. Therefore, since Garahi does not disclose allocating of a processor, it also necessarily does not disclose that such allocation "comprises updating said processor to be capable of said processing of said communication signal," as recited in Applicant's claim 3. Claims 13 and 23 are similar in many respects to the method disclosed in claim 3. Therefore, the Applicant submits that claims 13 and 23 are also allowable over

the references cited in the Office Action at least for the reasons stated above with regard to claim 3.

**II. The Proposed Combination of Garahi, Schmidt and Fry Does Not Render Claims 4-7, 14-17 and 24-27 Unpatentable**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 11 and 21 under 35 U.S.C. § 103(a) as being unpatentable by the combination of Garahi and Schmidt has been overcome and requests that the rejection be withdrawn. Fry does not overcome the deficiencies of Garahi and Schmidt. Additionally, claims 4-7, 14-17 and 24-27 depend from independent claims 1, 11 and 21, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1-31.

**CONCLUSION**

Based on at least the foregoing, the Applicant believes that all claims 1-31 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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